



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,967	03/22/2001	Tetsuyuki Murata	249-174	6041

7590 04/23/2003

NIXON & VANDERHYE P.C.
8th Floor
1100 North Glebe Road
Arlington, VA 22201-4714

EXAMINER

WINTER, GENTLE E

ART UNIT	PAPER NUMBER
----------	--------------

1746

2

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/813,967	MURATA ET AL.	
	Examiner	Art Unit	
	Gentle E. Winter	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 22 March 2001.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) 8-22 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-7 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☒ Claim(s) 8-22 are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-7, drawn to an electrode for an alkaline storage battery, classified in class 429, subclass 128.
 - II. Claims 8-22, drawn to method of manufacturing alkaline storage battery, classified in class 429, subclass 217.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process. Specifically, the in lieu of the slurry application step an active material layer could be formed on the electrode substrate.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Arthur R. Crawford on or about 11 April 2003 a provisional election was made with traverse to prosecute the invention of Group 1, claims 1-7. Affirmation of this election must be made by applicant in replying to this Office action. Claims

Art Unit: 1746

8-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

6. The disclosure is objected to because of the certain informalities, potentially artifacts of translation of the application into English. Representative examples have been provided for applicant's convenience, however the list does not constitute a complete listing, and failure to properly correct improper language may result in the delay of a notice of allowability. Specific examples include:

- a. "...material paste intends to increase the strength..." page 1
- b. "...active material paste intends to increase..." page 2
- c. "...electrode free from removal of an active..." page 3
- d. "...so that it can be given a high adhesion to the active..." page 4
- e. "...it will be not dissolved into water..." Abstract

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,750,287 to Kinoshita et al. (Kinoshita).

With specific respect to claim 1, which is drawn to an electrode for an alkaline storage battery comprising an electrode substrate and an active material layer formed on the electrode substrate. The active material layer containing an active material and a binder as a main component, wherein said active material layer contains thermosetting xylene-formaldehyde resin. Kinoshita discloses a lithium-containing organic electrolytic cell (see e.g. column 28, line 34 *et seq.* especially at 34) including an electrode (see e.g. column 28, line 34 *et seq.* especially at 40), wherein the electrode is disclosed to have a substrate (see e.g. column 28, line 34 *et seq.* especially at 41). The active material layer (lithium) contains lithium and an aromatic condensation polymer (see e.g. column 28, line 34 *et seq.* especially 47-50). Part of the aromatic hydrocarbon compound is disclosed as having phenolic hydroxyl group(s) being replaced with an aromatic hydrocarbon compound having no phenolic hydroxyl group, such as, “for example, a condensate of phenol, xylene and formaldehyde” (see e.g. column 2, line 44 *et seq.* especially 50-51).

Art Unit: 1746

As to claim 2, disclosing that the thermosetting xylene-formaldehyde resin is alkylphenyl-modified xylene-formaldehyde resin. The same is contemplated with the recitation of an aromatic hydrocarbon compound having no phenolic hydroxyl group. See e.g. column 2, line 44 *et seq.*

As to claim 3, disclosing that the active material has a particle diameter of 20-100 microns. The same is disclosed with the recitation that the active material has an average particle size of 20 microns or less. See e.g. column 7, line 22 *et seq.* especially 27.

As to claim 4, disclosing that the active material is a hydrogen storage alloy capable of reversibly making electro-chemical absorption or desorption of hydrogen. Lithium is a hydrogen storage alloy capable of reversibly making electro-chemical absorption or desorption of hydrogen. Lithium is disclosed as “useful as an active material for cells.” See e.g. column 3, line 22 *et seq.* especially line 30.

As to claims 5 and 6, disclosing that a layer of said thermoplastic xylene-formaldehyde resin covers the outside of said active material layer. The binder inherently forms a layer that includes thermoplastic xylene-formaldehyde resin. See e.g. column 27, line 34 *et seq.* especially lines 42 and 43. Claim 6, discloses that the thermoplastic xylene-formaldehyde resin is contained in a boundary between said active material layer and said electrode substrate. This is disclosed at e.g. column 27, line 34 *et seq.* especially lines 42 and 43. PAS is discussed at column 2, line 1, especially line 17 *et seq.*

Art Unit: 1746

As to claim 7, disclosing that the thermoplastic xylene-formaldehyde resin is contained in said active material layer. The resin is disclosed as *inter alia* the binder for the active material in column 2, line 3 *et seq.* as discussed above with respect to claims 1-6

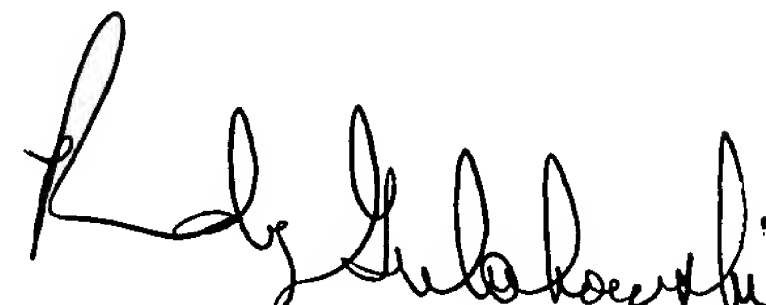
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gentle E. Winter whose telephone number is (703) 305-3403. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (703) 308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gentle E. Winter
Examiner
Art Unit 1746

April 21, 2003


RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700